We claim:

1. An antioxidant extract from sesame seeds/cakes comprising 5-20% lignan containing sesamol 10-16%; sesamin 60-75 %; sesamolin 5-8.8 %, and balance being tocopherols, polyphenols/ferulic acid, denatured proteins, sugars, lipids, minerals and browning products.

2. An antioxidant extract as claimed in claim 1 wherein the fraction is capable of protecting commonly vegetable oils at concentration ranging between 5 to 100ppm.

3. An antioxidant extract as claimed in claim 1 wherein the antioxidant extract is effective in protection of vegetable oils/foods at lower concentrations than any other synthetic or natural antioxidant.

4. An antioxidant extract as claimed in claim 1 wherein the free radical scavenging effect of methanolic extract of sesame cake is about 99% at 1.925 mg/ml concentration of extract.

5. An antioxidant extract as claimed in claim 1 wherein the antiradical power of purified sesame cake extract is 15 $x10^{-5}$ at EC_{50} Of 6.4 $x10^{3}$.

6. A process for the extraction of antioxidant extract from sesame seeds/cakes comprising 5-20% lignan containing sesamol 10-16%; sesamin 60-75 %; sesamolin 5-8.8 %, and balance being tocopherols, polyphenols/ferulic acid, denatured proteins, sugars, lipids, minerals and browning products, the said process comprising defatting of the powdered oil seed or cake with hydrocarbon solvents at 25 to 85°C at a ratio of 1:1 to 1:7 for 3 to 24 hours, washing the defatted material with water or brine, at a ratio of 1:1-1:5, 3 to 8 times and drying the residue below 70°C for 6 to 10 hours, and

extracting with organic solvents such as alcohols. esters, ketones, over a temperature range of 25 - 85°C for 10 hrs to 7 days and concentrating the said extract under reduced pressure of 150-100mm of Hg and dissolving the said concentrated extract containing 5 - 20% lignans in a permitted carrier such as pure ethanol/ethylene glycol/propylene glycol, stored under refrigeration till actual use.

7. A process as claimed in claim 6 wherein the said defatting can be carried out by soaking the powdered seed/cake in hydrocarbon solvents such as pentane, hexane, heptane or mixtures thereof, in the above ratio for 1-5 hours duration and removing the solvent and adding fresh solvent in the above ratio, at every interval and removing solvent.

8. A process as claimed in claim 6 wherein defatting can also be achieved by extracting the oil seed or cake in a soxhlet extractor with the above mentioned hydrocarbon solvents for a period ranging between 10-24 hrs.

9. A process as claimed in claim 6 wherein said defatted material can be water washed at 1:1 to 1:5 ratio, by stirring, 3-8 times at 1 hour interval.

10. A process as claimed in claim 6 wherein brine (3-10 % w/v sodium chloride solution) can be used at 1:1-1:5 ratio for 1-3 washings, followed by water washing at 1:1 to 1:5 ratio subsequently for 1-4 times.

11. A process as claimed in claim 6, wherein the residue obtained is dried below 70 ^{0}C by sundrying or by artificial means.

12. A process as claimed in claim 6 wherein the said meal after defatting/washing&drying is extracted with alcohols such as methanol, ethanol, isopropanol or ketones such as acetone, or esters such as ethyl acetate to get an antioxidant extract

13. A process as claimed in claim 6, wherein the said extract is concentrated preferably under vaccum (150-100mm Hg pressure).

14. A process as claimed in claim 6, wherein the said concentrate contains 5 to 20% antioxidant compounds/lignans, namely sesamol, sesamin, sesamolin, episesamin, lignan derivatives including glycosides, dimers etc. and lipids, sugars, proteins, minerals, browning (maillard reaction) products etc. is dissolved in ethanol or in any permitted food carrier and stored below 10°C.

15. A process as claimed in claim 6, wherein the said concentrate sesamol, the important antioxidant compound of sesame is extracted in higher amounts of 10-16% of the total antioxidant/lignan content in the extract, as against the reported trace occurrence of sesamol in sesame oil; there is no reported occurrence of sesamol in the aqueous alcoholic extracts of sesame meal in prior art either.

16. A process as claimed in claim 6, wherein the antioxidant concentrate is capable of protecting commonly used vegetable oils like soyabean oil, safflower oil, sunflower oil, groundnut oil etc. against oxidative changes at concentrations ranging from 5 to 1000ppm and comparable with the protection offered by BHT at 200 ppm.

17. A process as claimed in Claim 6 by which the antioxidant extract can also be utilised for protecting foods, cosmetics, pharmaceuticals etc.